abc_to_alphabeta_3.xbe

Attributes

```
xbe name=abc_to_alphabeta_3 evaluate=yes
Jacobian: constant
input_vars: a b c
output_vars: alpha beta
aux_vars:
iparms:
sparms:
rparms:
stparms:
igparms:
outparms: a b c alpha beta
```

Description

abc_to_alphabeta_3.xbe employs the following equations to relate a, b, c to alpha, beta:

$$\begin{bmatrix} \alpha \\ \beta \end{bmatrix} = \sqrt{\frac{2}{3}} \begin{bmatrix} 1 & -\frac{1}{2} & -\frac{1}{2} \\ 0 & \frac{\sqrt{3}}{2} & -\frac{\sqrt{3}}{2} \end{bmatrix} \begin{bmatrix} a \\ b \\ c \end{bmatrix}.$$

a, b, c, alpha, beta are made available as output variables.